

CLAIMS

What is claimed is:

1. A catalyst for producing hydrocarbon from a syngas, comprising a catalyst support on which a metallic compound is loaded,

wherein an impurity content of said catalyst is in a range from 0.01 mass% to 0.15 mass%.

2. The catalyst according to claim 1,

wherein an alkali metal or an alkaline-earth metal content in said catalyst support is in a range from 0.01 mass% to 0.1 mass%.

3. The catalyst according to claim 1 or 2,

wherein said catalyst support satisfies a pore diameter in a range from 8 nm to 50 nm, a surface area in a range from 80 m²/g to 550 m²/g and a pore volume in a range from 0.5 mL/g to 2.0 mL/g, simultaneously.

4. The catalyst according to any one of claims 1 to 3,

wherein said catalyst support in use is one letting said catalyst have a fracturing or powering ratio of 10% or below when an ultrasonic wave is emitted for four hours at a room temperature to said catalyst dispersed in water.

5. The catalyst according to any one of claims 1 to 4,

wherein said catalyst support is silica of a spherical shape.

6. The catalyst according to any one of claims 1 to 5,

wherein said metallic compound contains at least one kind selected from a group consisting of iron, cobalt, nickel and ruthenium.

7. The catalyst according to claim 6,

wherein said metallic compound is made from a precursor of metallic compound of the alkali metal or alkaline-earth metal content of 5 mass% or below.

8. A producing method of the catalyst described in any one of claims 1 to 7,

wherein the catalyst is loaded on a catalyst support after a pretreatment to lower an impurity concentration of the catalyst support is performed to the catalyst support.

9. The producing method of the catalyst according to claim 8,

wherein the pretreatment is rinsing using at least one of acid and an ion-exchange water.

10. The producing method of the catalyst according to claim 8 or 9,

wherein the catalyst is prepared using a catalyst support obtained using rinsing water of an alkali metal or alkaline-earth metal content of 0.06 mass% or below in said production step of the catalyst support.

11. The producing method of the catalyst according to any one of claims 8 to 10,

wherein the catalyst support is of a spherical

shape shaped by spraying method.

12. The producing method of the catalyst according to any one of claims 8 to 11,

wherein the catalyst support is silica.

13. A producing method of hydrocarbon,

wherein the hydrocarbon is produced from a syngas using said catalyst described in any one of claims 1 to 7.